

REMARKS

The above-referenced application has been reviewed in light of the Examiner's Final Office Action dated February 17, 2006. Applicants' undersigned attorney thanks the Examiner for courteously conducting the telephonic interview of April 13, 2006. Claims 1 and 5 have been amended. Therefore, Claims 1-14 are currently pending in this application. The Examiner's reconsideration of the rejections is respectfully requested, particularly in view of the above amendments and the following remarks.

In accordance with the Office Action, Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,967,968 to Nishioka et al. and further in view of U.S. Application Publication No. 2002/0037489 to Jones et al. Claims 1 and 5 have been amended. The amendments to Claims 1 and 5 have been made in accordance with the undersigned's understanding of the interview discussion. As mentioned in a telephone message for the Examiner, it is believed that the Examiner's Interview Summary contains a typographical error in that all proposed changes were intended to be made at line 9 of Claim 1 rather than line 4. Line 4 already recites "an image converter that ... converts".

Amended Claims 1 and 5 each recite, *inter alia*, "a flat panel display unit ... providing information on a size of the dots; and an image converter that ... converts ... wherein the image converter scales the first image information into the second image information based on the dot size information received from the flat panel display unit."

The amendments to Claims 1 and 5 are presented to clarify that it is "the image converter" that provides "the second image information based on the dot size

information received from the flat panel display unit.” This clarification is offered to distinguish the presently claimed apparatus from the Examiner’s combination argument that required a user to manually scale the second image relative to the first image. Thus, any question as to whether the Examiner may properly include a user as an element to realize a claimed apparatus is rendered moot. This issue has been raised before in Applicants’ remarks made prior to the present Final Office Action, and two (2) Requests for Continued Examination (RCEs) have previously been filed. Therefore, it is respectfully submitted that no new issues have been raised by the present amendments to Claims 1 and 5.

The ‘968 to Nishioka et al. is generally directed towards an endoscopic imaging system. The Nishioka endoscope includes a contact probe having spaced distance gradations. Nishioka does not scale a first image to a second image, but merely provides a scale (scaled ruler) to be displayed at the same time as the first (only) image. Nishioka et al. use the term “scale” to indicate providing a scaled ruler to be displayed with the image. See, e.g., Nishioka et al. at column 4, lines 55-58. Thus, Nishioka’s usage of the term “scale” is different from Applicants’ usage, which actually means converting the first image to a scaled second image that will display on a connected display device in real size.

An embodiment of the Nishioka system determines the approximate distance to an imaged object to within 10% of actual distance. If the magnification of the endoscope lens were known and constant, and if the refractive indices of the mediums

such as liquids and gases were substantially the same, it might thus be possible to determine an approximate size of the object to within about 10% of actual size.

As shown in Figure 2A, Nishioka displays this approximate scale or scaled ruler on the display device at the same time as the unscaled first image of an object. See, e.g., Nishioka et al. at column 4, lines 55-62. Nishioka et al. fail to teach or suggest converting the unscaled first image into a scaled second image for display, much less “wherein the image converter scales the first image information into the second image information based on the dot size information received from the flat panel display unit” as recited in amended Claims 1 and 5.

Arguendo, even if the Nishioka system could determine the real size of an object, rather than just an approximate indication of scale to within 10%, Nishioka et al. would still fail to teach or suggest “wherein the image converter scales the first image information into the second image information **based on the dot size information received from the flat panel display unit**” (emphasis added). That is, the Nishioka et al. reference suffers from at least the deficiency that an image converter cannot receive the current dot size information from the disclosed display device.

It shall be understood that a “dot” may include one or more physical pixels, and its physical size (that is, the “dot size”) may not be derived from a resolution setting alone (e.g., 1024 x 768). For example, a 1024 x 768 dot screen display might be 15 or 19 inches in diameter, and such screen diameter differences would likely be reflected in different dot sizes. In addition, if a fixed size screen were driven using 640 x 480 resolution instead of the above-mentioned 1024 x 768, the dot size would also change.

In addition, Nishioka et al. do not disclose a “real size display system” as defined in Applicants’ disclosure and claimed in amended Claims 1 and 5. Nishioka et al. merely display a non-scale object at the same time as a typically stretched scale, which scale would be approximately accurate (match a ruler) only if the display were manually reduced, such as by manual photo-reduction. See, e.g., Nishioka at col. 4, lines 65-68. The display of Nishioka et al. displays an object in a size other than real size, typically magnified, with a scale shown so that a user might manually take into consideration an approximate scale of a displayed non-scale reproduction. For example, although the screen size for Nishioka’s Figure 2A is not disclosed, it may be assumed that such screen is at least as large as the Figure itself, and more likely several times larger. Placing an accurate ruler below the scale shown in the Figure shows that the scale of the object is approximately doubled, or about 200% of real size. Thus, the objects of Nishioka et al. are not shown in “real size”, and the stretched centimeter scale of Nishioka et al. is required by Nishioka so that a user might manually consider the non-real size scale factor, at least in comparison with other non-real size scale factors encountered during an examination.


The Jones et al. publication is generally directed towards manipulation of dentition models. The Examiner relies on Jones et al. for showing a display unit “providing information on a size of the dots” (see Office Action at 3, lines 16-22). Such reliance is misplaced. Jones et al. neither teach nor suggest a display unit that provides current dot size information or signals to any other device, much less to an “image converter” as recited in amended Claims 1 and 5. Therefore, Jones et al. fail to cure at

least the deficiencies of Nishioka et al. with respect to “a flat panel display unit ... providing information on a size of the dots; and an image converter ... wherein the image converter scales the first image information into the second image information based on the dot size information received from the flat panel display unit” as recited in each of amended Claims 1 and 5. Accordingly, the '968 patent to Nishioka et al. fails to teach or suggest all elements of amended Claims 1 and 5, whether taken alone, in view of Jones et al., or in combination with any of the other references of record in this case.

Conclusion

Accordingly, it is respectfully submitted that amended independent Claims 1 and 5 are in condition for allowance for at least the reasons stated above. Since Claims 2-4 and 6-14 each depend from one of the above claims and necessarily include each of the elements and limitations thereof, it is respectfully submitted that these claims are also in condition for allowance for at least the reasons stated, as well as for reciting additional patentable subject matter. Thus, each of Claims 1-14 is in condition for allowance. All issues raised by the Examiner having been addressed, reconsideration of the rejections and an early and favorable allowance of this case are earnestly solicited.

Respectfully submitted,

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